

REMARKS

35 U.S.C. § 102(b)

Claims 1, 3, 4 and 7-10 have been rejected under 35 U.S.C. § 102(b) as anticipated by Waterman, US Patent No. 5,770,809. This rejection is respectfully traversed for the following reasons: Waterman fails to teach each limitation found in claims 1, 3, 4 and 7-10 as required to support a rejection under 35 U.S.C. 102(b). The Examiner has misapplied Waterman based upon a misunderstanding of the reference structure and has not provided, in support of the rejection, an explanation of how the reference meets each limitation found in the claims.

Specifically, Waterman is directed to a tool that fixedly *attaches to a probe, inserts the probe into a pressure vessel, unlocks the probe, and then is withdrawn. The tool does not project into a bore and does not release the probe as a tip is withdrawn from the bore.* (emphasis added). Waterman's probe consists of a drive piston that forces the probe end into a pressurized vessel against internal pressure of the vessel and removes the probe by a reverse procedure when the measurement, or sensor function is complete.

In contrast, as specifically claimed in claims 1, 3, 4, and 7-10, the subject invention is to a probe that pushes *and then releases* a sensor *as* the remote tip socket is withdrawn. Claim 1 specifically recites a release of the sensor at a depth as the remote tip end is withdrawn from a bore. Nowhere does Waterman teach a probe tip end configured to *release a sensor as the tip end is withdrawn from a bore* and the Examiner has provided no application of Waterman on this claim limitation.

Moreover, independent claims 1 and 7, and by reference thereto the claims dependent therefrom, recite an axial passageway extending to a remote tip end and a socket at the remote tip end in communication with the axial passageway. Such a configuration allows sensor leads to travel from the sensor at the tip end through the tool to exit from the opposite tip end. The Examiner considers Waterman body 71 to represent a tip body and Waterman cylinder 91 to be an axial passageway. Yet it is clear that no unobstructed passageway is formed by a socket at the forward tip of body 71 through cylinder 91 such that leads from a sensor at a forward end may be routed through the body 71 from end to end. Moreover, the claims of the subject invention are to a tip body and socket that push a sensor to a prescribed depth within a bore. Body 71 of Waterman does not project into a bore and certainly the length of body 71

is not taught in Waterman to correlate substantially with bore depth. Waterman inserts probe 20 by means of the stroke of piston 92, to the contrary. In short, no portion of Waterman body 71 constitutes a socket for pushing a sensor into a bore. No portion of Waterman body 71 projects into a bore, and Waterman body 71 thus fails to meet the limitations as to the tool tip as defined in the claims.

While unclear, if the Examiner is considering the probe 20, by projecting through a wall of pressurized container vessel 64 as representing a tool tip projecting into a bore, then probe 20 must meet all of the limitations of the claims as to the tool tip. As such, probe 20 would need to teach an axial passageway to a remote tip end; a sensor receiving socket at a remote tip end communicating with the tip axial passageway; and the socket having a configuration to push the sensor into the bore and leave the sensor within the bore upon withdrawal. (Claims 1, 10). Probe 20 lacks all such structure. Moreover, there is no socket taught by probe 20 for pushing a sensor into and releasing the sensor as the tip is withdrawn.

The only structure of Waterman that may be fairly considered to push probe 20 into the container vessel is the threaded socket 117 of piston 92. Yet socket 117 is not configured to be in communication with an axial tip passageway. The socket 117 is solid (see FIG. 2) and does not communicate with cylinder 91, even assuming that cylinder 91 could be deemed to constitute the axial passageway of a tool tip (which interpretation Applicant traverses). The claims also specify the sensor engaging socket to be at the remote tip end. Socket 117 is not at the remote end of body 71. The Examiner has relied upon socket 85 as meeting the claim limitations of a socket at a remote tip end. The socket 85, however, cannot meet the limitations of a socket at a remote end of body 71 because socket 85 receives the probe 20 therethrough and, therefore, does not push the probe 20 to a required depth. Moreover, socket 85 does not communicate with cylinder 91 because of the obstruction represented by piston 92. Still further, socket 85 does not release a sensor a predetermined depth *as* (i.e. simultaneously) the tip socket is withdrawn from the bore. In short, socket 85 does not perform the dual functions of pushing and releasing probe 20; does not communicate with the cylinder 91; and does not release a sensor as it is withdrawn from a bore. The Examiner has stated that socket 85 is “for receiving the probe 20 where the probe is pushed into the bore and released”. However, the claims require the socket to push and release the sensor as the socket is withdrawn from a bore. Waterman socket 85 does not push against an end of probe 20. The specification portion col. 3, lines 41 et. seq., referenced in the Office Action, do not recite socket 85 as pushing and releasing probe 20 upon withdrawal of the socket from a bore.

No support in Waterman, accordingly, can be fairly relied upon in anticipating the claims of the pending application.

As to claim 3, Waterman teaches a fixed connection between its handle and the remaining apparatus. No teaching as to the need or benefit to removing the Waterman handle is found in the reference. The Examiner's conclusion that the body 71 is detachable from the Waterman handle is, therefore, considered erroneous.

As to claims 4 and 8, the Waterman handle 97 is not seen as forming a T-shaped gripping portion as required in the claims. The gripping portion of Waterman handle 97 appears to project as a straight cylinder from body 71. The rejection is accordingly traversed.

As to claim 7, it is not clear what bore and tip in Waterman the Examiner is comparing. Body 71 is certainly not substantially the same length as the wall through which probe 20 extends. Body 71 does not even extend through the container wall. Body 71, therefore, cannot meet the limitation of the claims to a tool tip that pushes a sensor at a forward tip end into a bore, much less to a tip that is of substantially the same length as the bore.

As to claim 9, Waterman does not configure body 71 as a roll pin. No anticipation of claim 9 is therefore possible from Waterman.

35 U.S.C. § 103

Claims 2, 5, 6 and 11-13 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Waterman ('809) in view of Waterman (U.S. Patent No. 4,537,071).

The deficiencies in regard to the primary Waterman '809 reference in failing to teach or suggest the claimed invention is incorporated by reference. As to Waterman '071, its addition does nothing to diminish or alter the deficiencies in the primary reference. Neither reference teaches a tip having a socket at a remote end that both pushes a sensor into a bore and releases the sensor at a predetermined depth as the remote tip socket is withdrawn from the bore.

As to claim 2, the Waterman '071 reference does teach leads coming from *the probe holder* (emphasis added). However, that is not the limitation present in claim 2. Claim 2 recites an aligned axial passageway between the handle and the tip axial passageway such that the leads may progress from the remote tip end to an outer end of the handle passageway. Nothing in Waterman '071 teaches such a pathway. In fact, the handle 29 of Waterman '071 lacks any passageway therethrough. In additional fact, the apertured spherical valve closure

27 is interposed in Waterman '071 between the probe holder and the handle 27, rendering a progression of leads from the probe holder through a passageway in the handle impossible. One skilled in the art would not find it obvious to achieve the invention of claim 2 when both references by their structure prevent a routing of probe leads from a forward passage end back through a handle passageway. The rejection is accordingly traversed.

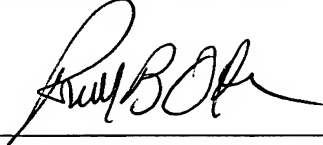
As to claim 12, the Examiner's reference to a bore in Waterman '071 is ambiguous. It is not clear as to what "tip" is being referenced in Waterman. The wall to the pipe 10 has an aperture therein that is not substantially the same as the length of probe 22. An access fitting 12 is welded to the pipe 10 and has an axial passageway. However, this is not a bore into which the probe is placed at a predetermined depth since probe 22 projects from the access fitting and into the pipe. Therefore, the length of probe 22 would not be substantially the same as the length of the access fitting 12. Applicant further maintains that neither reference is for the placement of a sensor to a predetermined depth within a bore and neither uses a tool tip that is detachable to allow for substantially matching the length of a tool tip to the bore into which the sensor is to be inserted. The Examiner has provided a combination of non-analogous references to the objectives and art to which the subject invention is directed. Neither reference contains any instruction that would direct one skilled in the art as to how to accomplish a sensor placement with a bore to a desired depth or a correlation between tip length and bore depth.

35 USC § 112

Claims 1-13 have been rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. This rejection is respectfully traversed for the following reasons. One skilled in the art would understand the configuration of the socket from the description in the specification of the forward end 32 of the tool tip 14 and as functionally described in the specification and sequentially illustrated in FIGS. 5, 6, and 7. The forward tip end, or socket 32, has a configuration that abuts and pushes the sensor along the bore path to its intended depth and, after reaching the desired depth, is freely withdrawn out of the bore, leaving the sensor at the prescribed depth within the bore. One skilled in the art would clearly be enabled to make and use the invention from the specification and would readily understand the claimed configuration of the forward socket end of the tool tip.

In light of this amendment, all of the claims now pending in the subject patent application are allowable. A re-examination of all pending claims and their collective allowance is, therefore, requested.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "R. B. O'Planick", written over a horizontal line.

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